

KONFOONG BIOINFORMATION TECH CO.,LTD

More Than Precise



KONFOONG BIOINFORMATION TECH CO.,LTD

Tel/WhatsApp: +86 186-7233-4799

Email: info@kfbio.cn

Web: www.kfbiopathology.com

20 years research and development

Easy Operation

High-accuracy Imaging

20 years of technical upgrade experience helps develop the latest series of the best quality KFBIO products. KF-PRO series digital pathology slide scanners have excellent performances in its movement precision, focus precision and image processing precision. High-accuracy WSI meets the needs of traditional slide viewing method, and the high-precision demands of AI-assisted image analysis.

As the first batch of Chinese digital pathology slide scanners, KF-PRO series have been installed in more than **2000 hospitals** and labs, and scanned more than **50 million** slides.

Application Scenarios: Telepathology, AI analysis, pathology department

View Samples



HE



TCT



ISH/FISH



IHC

Five Functions

3 Colors Independent Process

K-SCP color processing helps reproduce the original color, color saturation, color temperature, color contrast and color compensation of different monitors. High-accuracy Imaging and high-accuracy color representation make every slide trustworthy.

6 Different Capacity

KF-PRO series digital pathology scanners of 1~400 slides meet different needs of different workload. They support different scanning modes of different kinds of slides. Software are self-developed and equipped for digital slides storage and management, telepathology and scientific research.

25s High-speed Scanning

It only takes 25s to scan a 15mm*15mm area at 20x magnification. It's quite suitable for rapid frozen section consultation, high-throughput scanning and real-time AI data acquisition.

20nm Precise Control

KF-PRO series digital pathology scanners adopt line scanning technology and grating ruler position method to realize high-precision movement control at nanometer level. It makes every sample process quickly and accurately and realizes more stable imaging.

80x Magnification

It uses top optical configuration to improve the light source, objective lens, cameras, optical path, etc. It greatly improves resolution. The structure and details of cells are clearly visible. The edge of cells is sharp and the cell structure is clear.



High-quality model for clinic and scientific research



KF-PRO-005-EX



High Speed

25s scanning (15mm*15mm,20x), rapid frozen section diagnosis, over 200,000 cases



Z-stack Scanning

Support Z-stack scanning to fuse a high-quality slide, support single layer viewing



Cloud Configuration

Provide free cloud for storage and one-click sharing



Support Different Slides

Support precise scanning of light color staining, uneven thickness, small tissue slides



Support Different Sizes

1*3 inch, 2*3 inch, 6*8 inch, automatic recognize tray model to adjust parameter

• Application Scenarios •



Rapid remote frozen section diagnosis, complex cases, multi-discipline consultation, applied in top hospitals, medical institutions, laboratories



Precise scanning for scientific research data collection, new drug development



Digitize and archive high-quality slides for slide bank construction, education resources, important cases archive



Customized AI-assisted scanning to preprocess the slide images

AI-assisted Analysis High-matched Model



KF-PRO-020



Batch Loading

Support tray loading and slide box loading



High Stability

Electric condenser, strong light source and high-sensitive camera ensure excellent scanning performance



High Flexibility

Support small and large batch scanning for remote consultation



AI-enhanced Imaging

Slides recognition improvement, color contrast of cell nucleus enhancement, image recognition accuracy improvement



Multi-site Management

Central archive management for different working scenarios and centralized AI analysis

• Application Scenarios •



Batch AI-assisted diagnosis



Telepathology consultation, multi-discipline consultation, complex cases archive



Data analysis and academic exchange



Scientific research data archive and management

High stable model for clinic, education and research



KF-PRO-040



High Speed

15mm*15mm, 20x, 25s only



Top Accessories

OLYMPUS top objective lens
CHROMA narrow band filter



Stable Scanning

Magnetic suspension motor drive
99.85% slides scanned successfully



High Precision

50nm positioning accuracy
Support 80x magnification



High Fidelity

High resolution 0.5 um/pixel (20X),
0.25um/pixel (40X) WSI scanning



Professional Services

Customize products quickly
Provide in-time support

• Application Scenarios •



Daily use for pathology labs and hospitals



Remote sharing and consultation for scientific research



Efficient slide management, archiving and storage



Customized AI algorithm to assist diagnosis

High-throughput model for large hospitals and labs



KF-PRO-120



High Speed

15mm*15mm, 20x, 25s only



High Compatibility

Support bright-field and fluorescence
Support different image format



Stable Scanning

Magnetic suspension motor drive
99.85% slides scanned successfully



Intelligent Scanning

Automatic one-click scanning
Customized AI algorithm



High Fidelity

High resolution 0.5 um/pixel (20X),
0.25um/pixel (40X) WSI scanning



Professional Services

Customize products quickly
Provide in-time support

• Application Scenarios •



Large throughput for pathology labs and hospitals



Remote sharing and consultation for scientific research



Efficient slide management, archiving and storage



Customized AI algorithm to assist diagnosis

Full Digital Pathology Labs Basic Model



KF-PRO-400

- Full Automatic**
 One-click scanning, read slide bar code **automatically**, upload **classified slides** to storage server
- Automatic Image Quality Grade**
 Grade image quality **automatically** before archiving
- High Stability**
Record: Scan 4600 continuously without errors
- Slide Protection Programme**
Push out or skip the nonstandard slides **automatically** to avoid getting stuck
- Intelligent Scanning Mode Switch**
Switch scanning parameter and mode **automatically** for different slides
- Big Data Efficient Management**
 Centralized data storage, efficient classification management, bind to patient information automatically, graded **storage**

● **Application Scenarios** ●

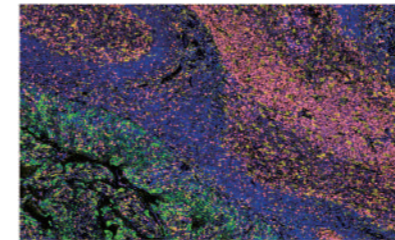
- Full digital pathology department construction
- Large batch AI-assisted scanning, sub-specialty AI analysis systems
- Artificial Intelligence data collection and annotation
- Bid data scan and storage, large data bank construction
- Various digital applications in experiment platform

Fluorescence Scanning Upgrade Choice

Support Whole Series

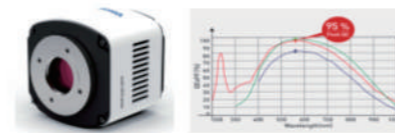
KF-PRO series can be upgraded to equip fluorescence channels. Fluorescence scanning speed: 8 slides/h (3 channels). 2*2 px image fusion function, high sensitivity. Short exposure time realizes weak light detection to protect sample.

Latest 1.2 inch matrix CMOS chip. Target surface size: 6.5 um. Higher quantum efficiency.



Top Fluorescence Camera

Active cooling sCMOS fluorescence camera. Low SNR. High resolution.



Support Bright-filed and Fluorescence

Support bright-filed and fluorescence scanning; Standard: 3 or 6 fluorescence channels. 10 channels at most.

Approved registration certificate for fluorescence scanner

中华人民共和国医疗器械注册证	
注册证编号:	国械注准(2018)210002
注册人名称:	安徽中科爱普医疗技术有限公司
注册人住所:	浙江省金华市婺城区白龙桥镇五洲山路
生产地址:	浙江省金华市婺城区白龙桥镇五洲山路
代理人名称:	无
代理人住所:	无
产品名称:	数字病理扫描仪
型号、规格:	KF-PRO-400
注册证类别:	二类医疗器械
注册证有效期:	自2018年12月10日至2023年12月10日
备注:	本产品符合GB 191-2008《包装储运图示标志》、GB 4852-2005《医疗器械通用技术标准和基本要求》、GB 191-2008《包装储运图示标志》、GB 4852-2005《医疗器械通用技术标准和基本要求》、GB 191-2008《包装储运图示标志》、GB 4852-2005《医疗器械通用技术标准和基本要求》
附件:	产品说明书
备注:	

Top Filters

Quick filter switch, wide spectral region, excellent fluorescence imaging performance. Separate fluorescence channels efficiently. Large information density but high-quality data meanwhile.



Several LED independent light sources to fit every fluorescence channel

● **Application Scenarios** ●

- Multi-color immunofluorescence scanning
- FISH scanning and analysis
- Applied in scientific research: brain science, liver, stem cells, drug development
- Cancer microenvironment analysis/ Spatial transcriptome analysis

DIGITAL PATHOLOGY SLIDE SCANNER (FLUORESCENCE)

KF-FL SERIES

Capacity: 5/20/120/400 slides

Mode: Bright-field&fluorescence

Lightning: LED light source

Channel: 8 channels at most

Algorithm: Fluorescence AI analysis algorithm



▲ KF-FL-400



▲ KF-FL-005

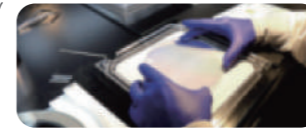


▲ KF-FL-020



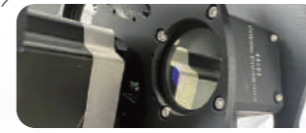
▲ KF-FL-120

Key Advantages



Top Filter

Minimum spectral band resolution reaches 10nm
The transmission rate reaches 99% and the cutoff rate reaches OD6



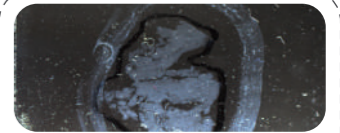
Original Light Source Lighting Design

Specific spectral band LED light source excitation
Prevent cross-color efficiently



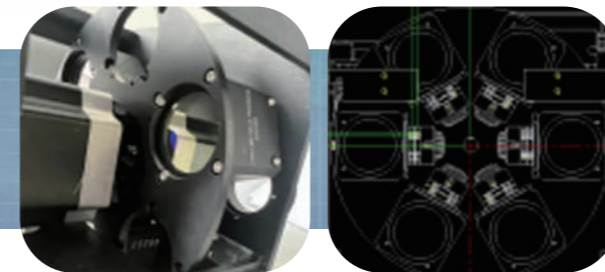
SCMOS Camera

Active refrigeration SCMOS fluorescence camera
Low signal-to-noise ratio, high resolution



Original Preview Shooting Technique

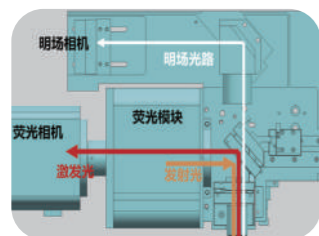
Automated identification of scan areas
Shorten scanning time



Independent LED light source avoids cross color. It features with its high contrast, high brightness, no drift and no cross color. It's more suitable for specific fluorescence channel.

CHROMA narrowband filter is equipped. The minimum spectral band resolution reaches 10nm.

Key Technical Advantages



Flexible Configuration

Support bright-field and fluorescence scanning
Support different channel purchase



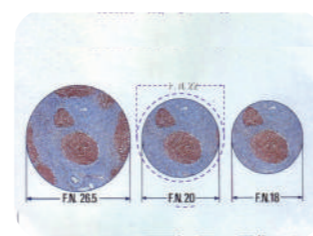
Convenient Maintenance

Removable color filter
Easy to maintain



Durable In Use

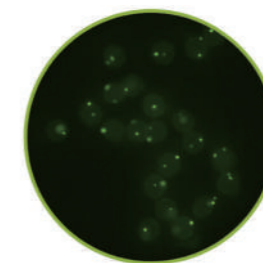
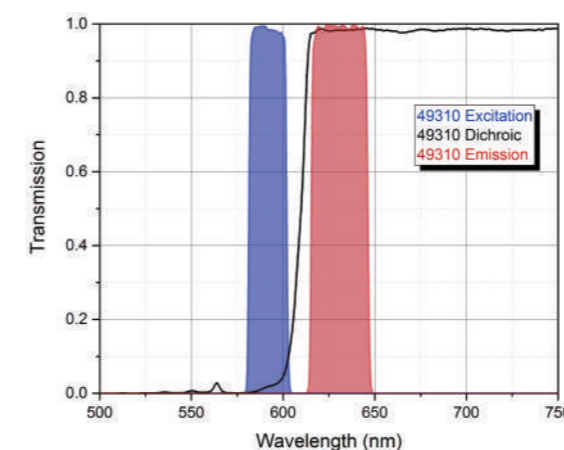
LED light source
20000+ hours lifetime



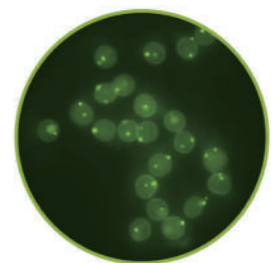
Large Field of View

26.5mm field of view
Reduce shoot and exposure time

8 channels, 8 filters at most








FISH filters
High contrast



General filters
Low contrast

Choose a product that meets the needs of your lab

Digital Pathology Slide Scanner Parameter

	KF-PRO-005-EX	KF-PRO-020	KF-PRO-040	KF-PRO-120	KF-PRO-400
Model					
Capacity	5	20	40	120	400
Scanning Mode	Line Scanning				
Scanning Speed	25s (20X, 15mm x 15mm) 60s (40X, 15mm x 15mm)				
Objective Lens	Plan achromatic objective 20X, NA 0.8; 40X, NA 0.95				
Resolution	≤ 0.5 μm/pixel (20X) ≤ 0.25 μm/pixel (40X)				
Position Accuracy	20nm				
Z-stack	✓	✓	✓	✓	✓
AI Recognition	✓	✓	✓	✓	✓
Fluorescence Upgrade	✓	✓	✓	✓	✓
Image Format	KFB/TIFF/SVS				
Movement Mechanism	Magnetic suspension drive, no noise, no abrasion				

Fluorescence Model Parameter

Acceptable Slides	Digital 5 Slides Scanner: 1*3inch, 2*3inch, 6*8inch, standard bright-field and fluorescence slides; Other models: 1*3inch, standard bright-field and fluorescence slides			
	6 channels to choose, CHROMA filter			
	Channel Name	EX	BS	EM
	KF-DAPI	350/50	400	460/50
	KF-GREEN	495/25	515	537/29
	KF-ORANGE	546/10	556	572/23
	KF-RED	580/25	600	625/30
	KF-CY5	630/20	647	667/30
	KF-CY7	710/75	760	810/90
Fluorescence Scanning Speed	3 channels exposure time: 50ms; 15mm*15mm scanning time: 8min 6 channels exposure time: 50ms; 15mm*15mm scanning time: 16min			
Fluorescence Area	Select an area manually, recognize marked area automatically			
Fluorescence Camera Parameter	Active cooling 1.2 inch target surface sCMOS fluorescence camera.			
Z-Stack	Support Z-stack and image fusion function			

Whole-slide Imaging Analysis System (for scientific research)

Acceptable Slides	H&E, IHC, ISH, FISH, IF slides, etc; Oncology, neurosciences, metabolism, transplantation, toxicological pathology;
Analysis Speed	1.5cm*1.5cm WSI analysis, ≤1min
Module	Choose module according to needs

Team and Service

About KFBIO

KFBIO has been devoted to digital pathology for ten years. KFBIO has developed a innovative end-to-end digital pathology solution including pathology slides scanning equipment, pathology routine equipment, telepathology platform, AI analysis systems, etc.

Technical Strength

Chinese Thousand Talents Plan: 2 talents; Over 50% R&D staff; 267 patents, 95 invention patents

Market Distribution

Strong agents network; Cover Asia, Europe, America, etc.

Top Clients Over 2000 hospital clients



Technology partnership: Intel, Nanjing University of Science and Technology, China Maternal and Child Health Association, Tokyo Institute of Technology



Value-added Service

Free 50GB cloud space for storage

Digital pathology quality control and training courses

Online pathology slides sharing and discussion webinars

Bright-field and fluorescence scanning for scientific research

K-VIEWER

Image Viewing Software

K-Viewer offers to browse and annotate the digital slides for the convenience of pathologists to diagnose the cases. It allows pathologists to quickly access slides or cases locally at the desktop or remotely, on a computer, smartphone or tablet device. K-Viewer gives customized viewing options for different customers to deliver optimal performance and suit the device you choose. Its intuitive interface and customized workflows provide a consistently excellent viewing experience.

Real-time, Security, Stable

- >>Real-time Slide Image Collection and Transmission
- >>Safe, Stable and High Fidelity Data Transmission
- >>Local PC and Mobile Phone Viewing Are Available

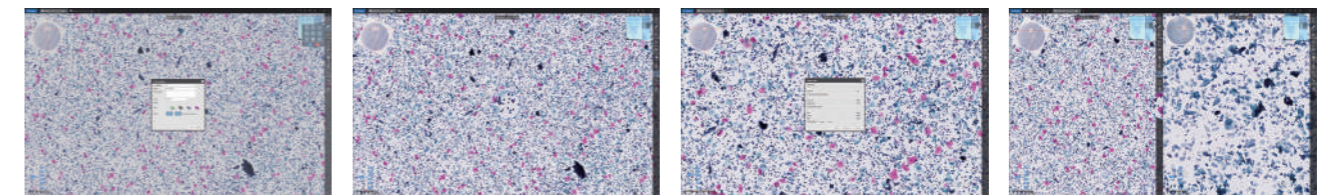


Software Functions

- >>Zoom, rotation and partial magnification
- >>Real time view and mark multiple images synchronously
- >>Parameter definition of image comparison, color channel, auto-play etc
- >>Marking tools of images and words, measure the marked areas automatically

Operating Modules

Local Image Viewing



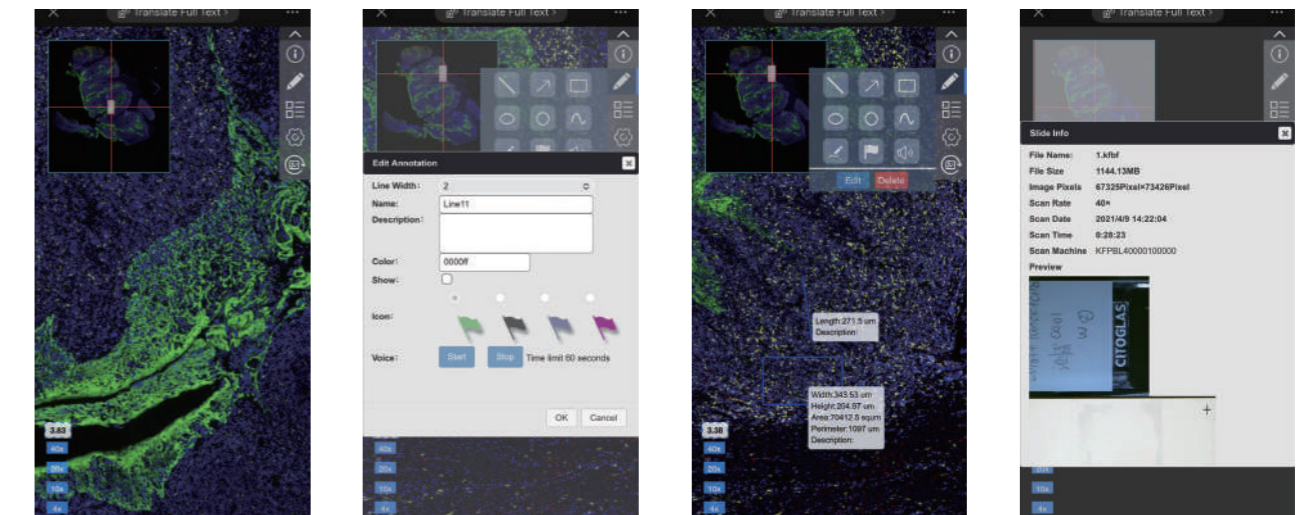
Mark and annotate

Partial zoom

Slide parameter adjustment

Synchronous viewing

Mobile Image Viewing



Zoom in and out

Mark and annotate

Automatic measure

Slide information

• Application Scenarios •



Telepathology for both classroom and online education



Flexible presenter role for students



Instant K-Viewer: an excellent viewer for remote slide viewing

KFBIO Slide Management System

It makes it possible to manage a large number of digital slides within a short time. It allows pathologists to get access to slides immediately after being scanned so that slides can be shared or annotated remotely. It greatly reduces your workload to manage slides.

Seamlessly connect with **digital pathology slide scanner** to provide the most comfortable experience for you.

>> Share

Use the link or QR code to share the digital slide to others

>> Speed

Upload digital slides automatically or manually quickly

>> Integration

Integrate with HIS and LIS for the convenience of slide sharing and management

>> Convenient

Rapid retrieve, edit and annotate the digital slides

>> Security

Privileged access management is properly applied in the system to secure the sensitive data.

Manage your digital slides in the most convenient way

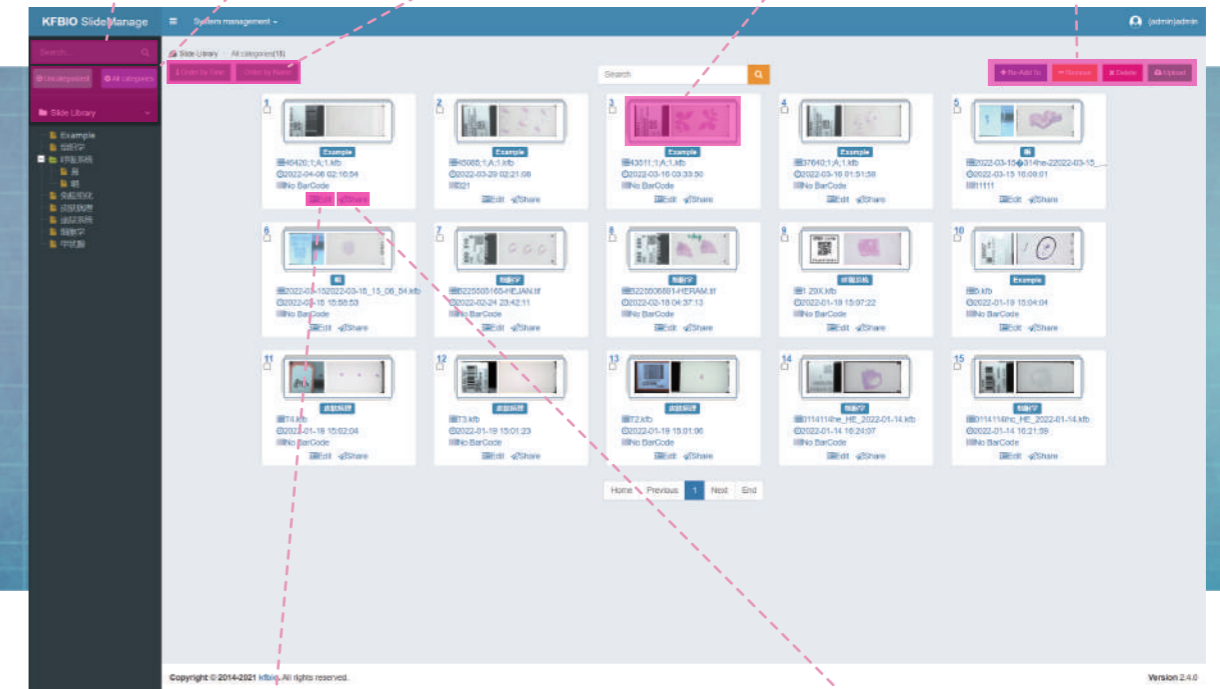
Search the digital slides you want quickly.

Classify different categories of digital slides for quick retrieval.

The digital slides can be sorted in the time order or name order.

All digital slides are presented to preview in a convenient way.

Slide can be automatically or manually uploaded to the system.



The name can be edited for the convenience of being sorted. Bar codes can be connected to facilitate LIS and HIS connectivity.

Edit

Name:

Bar code:

Close Save

Use the link or QR code to share the digital slide to others.

Share

Link:

QR code:

Close Save

• Application Scenarios •



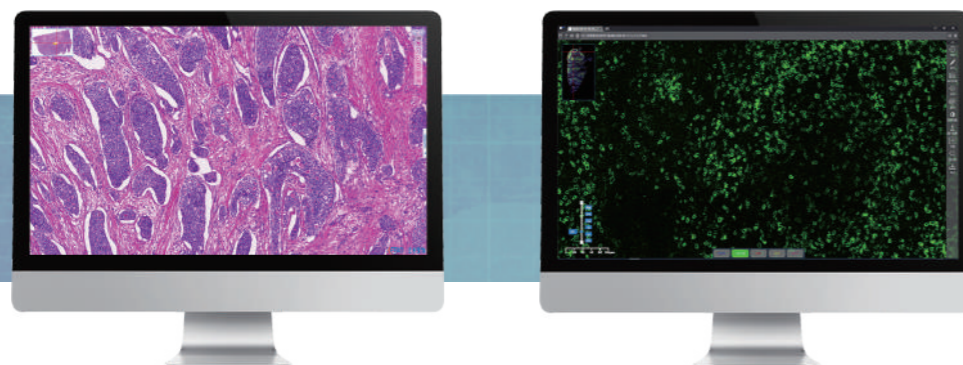
The indispensable software for digital pathology slide scanners



Large-throughput digital slides management in labs or hospitals



Whole digitization of pathology labs or departments






Telepathology

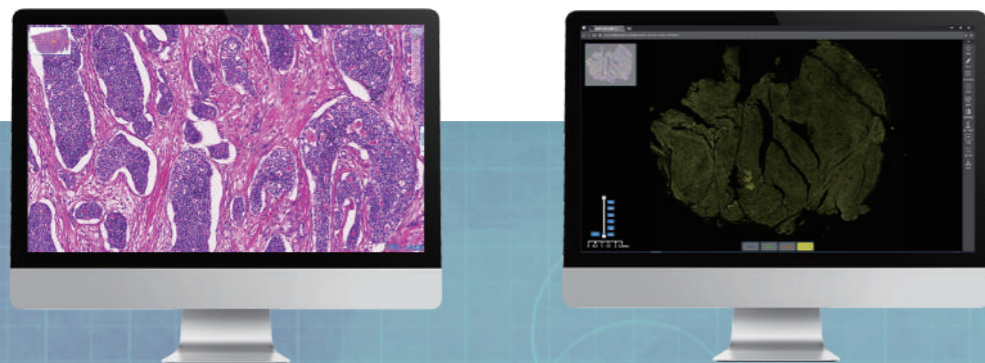
Pathology Remote Consultation Platform

Innovated and perfected multiple times by KFBIO, the KFBIO Pathology Remote Consultation Platform has succeeded in greatly simplifying pathologists' workflow and facilitating pathologists in diagnosing remotely and viewing slides without the limitation of time and place. It covers the function of diagnosis management, frozen section management, case collection, data statistics and real-time connection from different sites.

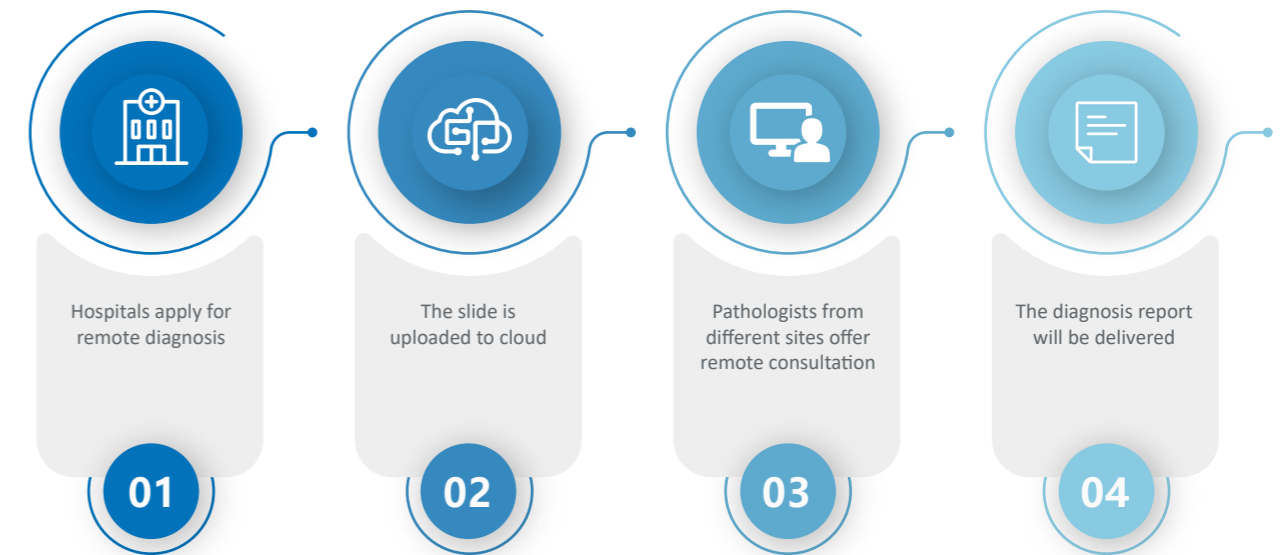
Diagnose and view slides anytime, anywhere. Get right answers efficiently with this telepathology platform to share and discuss the digital slides.

- 
Real Time
 Rapid frozen consultation, real-time audio and video for diagnosis, seamless reports delivery
- 
High Stability
 Stable communication and data transmission, quality control, data management
- 
Share
 Remote education, discussion and consultation, pathology training and assessment support

- 
High Security
 Data transmission encryption, safe user login, sensitive data protection
- 
Convenient
 One-click view slides with link or QR code, online zoom and annotate slides, HIS integration
- 
Service
 Fast customization, free upgrade, in-time technical support and after-sales service



Pathology Remote Diagnosis Workflow



Security Guarantee



Application Scenarios

- Routine and difficult cases consultation**
 Pathologists discuss and diagnose routine difficult cases remotely via online platform to help analyze the medical history, the current situation and the future treatment plan for patients.
- Cytology, TCT IHC consultation**
 Pathologists analyze and diagnose the cytology, TCT and IHC slides together remotely. It improves the sample quality and cell detection sensitivity.
- Intraoperative rapid frozen section consultation**
 Pathologists diagnose the frozen sections sampled from the surgery in a short time to provide reference diagnosis opinions to the surgeon for the next step of surgery.
- MDT multidisciplinary consultation**
 The group seminar composed of experts from multiple departments is held regularly to discuss the best treatment plan for different diseases and different patients.